

28 Oct 2000 IRTF JL, ME, TG

- pup. 0001 pupil image through trap door
- 0002 " "
- 0003 " (now have instmode right) Instmode wrong
- 0004 " trap door closed "
- 0005 " " "
- 0006 " mirror cover shutter is open Looking at sky
- 0007 " " "
- 0008 " above done with 1mm hole this one is open
- 0009 " " very nice

$T_{dome} = 2^{\circ}C$

was snowing today. still humid
2nd window over lens

looks good. camera + better than trap door
clouds coming through - don't use for emissivity

clouds stopped us on δ Cef + λ Tau
 found Jupiter, posn x SPEX focus $z = -4.6$ (TV reaches -4)
 found α Tau, w/ dewar facing S E SPEX = -1.5
 in imaging mode: N S NSF = -2.8
 W CSHELL = +2

It's too cloudy to take data.
Quit at 3:30

29 Oct 2000

MR, TG, JL

| | | | |
|-----------|------------------|------------------|---------------------------------------|
| junk.0001 | junk | | |
| junk.0002 | flat | | $t_{int} = 0.45$ |
| flat.0003 | 13.7 μm | 250 μm slit | |
| 4 | 911 cm^{-1} | | 5% of 250 μm signal |
| 5 | " | 200 μm slit | 2x 250 μm signal |
| 6 | " | SSD | 2x previous |
| 7 | " w/ | 3x t_{int} | 3000 ADU still linear |
| 8 | 150 μm slit | 0.45 | 5800 |
| 9 | | 0.85 | 8500 |
| 10 | | 1.25 | 14000 |
| 11 | | 2.5 | 29000 |
| 12 | | 3 | 25000 |
| 13 | | 4 | nod wait too short longer nod wait |
| 14 | | | |
| 15 | 250 μm slit | 1.5 t_{int} | 911 - 15,000 |
| 16 | 2000 cm^{-1} | 300 ADU | (wiggles + order peak) |
| 17 | 1667 | 1500 | |
| 18 | 1400 | 3000 | |
| 19 | 1250 | 4500 | now through filter |
| 20 | 1100 | | |
| 21 | 1000 | | |
| 22 | 900 | | |
| 23 | 770 | | |
| 24 | 587 | | |
| 25 | 540 | | |
| 26 | 520 | | |

Shut by fog

During afternoon improved dewar alignment

Rough calc. $\Rightarrow E_{shiny} = 15\%$

$E_{black} = 95\%$

$\chi_{res.} \approx 6\%$

saw echo of slit image due to poor settling of array. very bad at 0.15 (4 echos seen) still significant at 0.25 frametime

Efficiency varies between 3, 8%

Peak at 11-12

Variation may be due to Echelle angle

31 Oct 2000

- pup.0001 pupil image, f-lens open
 breg.0002 β Peg image instrmode wrong - hdr
 irsi.0003 NGC 7538 IRS 1 image
 4 maybe good instrmode wrong
 5 good
 6 NGC 7538 IRS 1 745.3 - 749.2
 7 " some clouds
 8 " bad clouds
 9 " bad clouds, garbage
 10 " bad clouds, object coming back
 11 " "
 12 " "
 13 " " to nodwait = 15 \Rightarrow 2 fr
 14 " "
 15 " "
 16 R Cass (header wrong) never saw it

Shimmed dewar N.040 on analog box side
 found β Peg (w/ difficulty) checked focus

measured image of 7538 IRS 1 through CVP hole
 go to 748 cm⁻¹ 250 μ m slit Xd made

have nodwait = 2s, but suspect we are getting a β
 3 frame \Rightarrow 3 sec wait (it rounds up)

having to guide NW
 slit N-S holding 4" NS

32 Oct 2000 MF, TG, JL, GB, AB

atau.0001 d Tau good at 11.15

2

3

4

cap.0005 d Aur some guiding trouble

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atau.0020 d Tau seeing worse, turned better

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sir.0024 Sirius not on it

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bn.0032 Beelzebub Star 747.2-751.2 good 2.6

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36

bn.0037 Ite2 header wrong

ircr.0038

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40

41

42

looks good

clouds return

Were shut down by high clouds, low clouds, or humidity until ~2 AM

Got offset TV to work by taking out lens + moving full back

No guide stars avail. for d Aur

need to guide N